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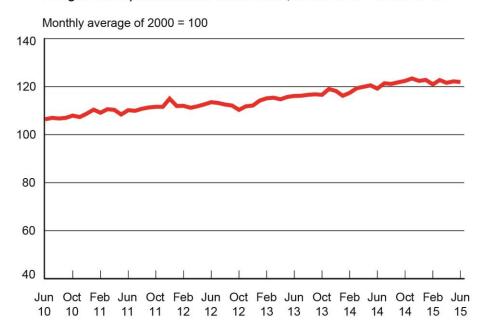
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# June 2015 Freight Transportation Services Index (TSI)

The Freight Transportation Services Index (TSI), which is based on the amount of freight carried by the for-hire transportation industry, fell 0.3 percent in June from May, falling after a single month of growth, according to the U.S. Department of Transportation's Bureau of Transportation Statistics' (BTS). The June 2015 index level (121.9) was 28.8 percent above the April 2009 low during the most recent recession (Tables 1, 2, and 2A).

Freight Transportation Services Index, June 2010 - June 2015



The level of freight shipments in June measured by the Freight TSI (121.9) was 1.2 percent below the all-time high level of 123.4 in November 2014 (Table 2A). BTS' TSI records begin in 2000. See historical TSI data.

The May index was revised to 122.2 from 122.7 in last month's release. The April and February indexes were also revised down slightly.

The Freight TSI measures the month-to-month changes in freight shipments by mode of transportation in tons and ton-miles, which are combined into one index. The index measures the output of the for-hire freight transportation industry and consists of data from for-hire trucking, rail, inland waterways, pipelines and air freight.

Analysis: The 0.3 percent decline in the index from May to June was due to declines in truck, water and rail intermodal shipments. For the April-to-June quarter, the 0.6 percent decline was the first quarterly decline since the second quarter of 2014, and the largest decline since the third quarter of 2012 (Table 10). In contrast to the Freight TSI, Passenger TSI grew 1.6 percent in the second quarter, the largest quarterly increase since the first quarter of 2007. Over a longer period, the 0.4 percent decline in the first half of 2015 was the first semi-annual decline since the second half of 2012 in Passenger TSI (Table 11).

**Trend:** The June decline of 0.3 percent in the Freight TSI continued the trend that began after the index peaked in November 2014. The index has alternated months of increases and decreases with the months ranging from 0.6 percent below the November level to 2.1/percent lower. Following the decrease in June, the index was 1.2 percent lower than the all-time high. After dipping to 94.7 in April 2009, the index rose 28.8 percent in the succeeding 74 months. For additional historical data, go to TSI data.

**Index highs and lows:** Freight shipments in June 2015 (121.9) were 28.8 percent higher than the recent low in April 2009 during the recession (94.7). The June 2015 level was 1.2 percent below the historic peak reached in November 2014 (123.4).

**Year to date:** Freight shipments measured by the index were down 0.4 percent in June compared to the end of 2014 (Table 3).

**Long-term trend:** Freight shipments are up 14.6 percent in the five years from the post-recession level of June 2010 and are up 9.2 percent in the 10 years from June 2005 (Table 5).

**Same month of previous year:** June 2015 freight shipments were up 2.3 percent from June 2014 (Tables 4, 5).

**2nd quarter changes:** The Freight TSI rose 0.2 percent in the first quarter and fell 0.6 percent in the second quarter of 2015 (Table 10).

The TSI has three seasonally adjusted indexes that measure changes from the monthly average of the base year of 2000. The three indexes are freight shipments, passenger travel and a combined measure that merges the freight and passenger indexes. See <a href="Seasonally-Adjusted Transportation Data">Seasonally-Adjusted Transportation Data</a> for numbers for individual modes. TSI includes data from 2000 to the present. Release of the July index is scheduled for Sept. 10.

**Passenger Index:** The TSI for passengers fell 0.2 percent in June from its May level (Table 6). The Passenger TSI June 2015 level of 122.6 was 2.6 percent above the June 2014 level (Table 7). The index is up 9.6 percent in five years and up 12.7 percent in 10 years (Table 5). The passenger TSI measures the month-to-month changes in travel that involves the services of the for-hire passenger transportation sector. The seasonally adjusted index consists of data from air, local transit and intercity rail.

**Combined Index:** The combined freight and passenger TSI fell 0.3 percent in June from its May level (Table 8). The combined TSI June 2015 level of 122.2 was 2.4 percent above the June 2014 level (Table 9). The combined index is up 13.1 percent in five years and up 10.0 percent in 10 years (Table 5). The combined TSI merges the freight and passenger indexes into a single index.

**Revisions:** Monthly data has changed from previous releases due to the use of concurrent seasonal analysis, which results in seasonal analysis factors changing as each month's data are added.

BTS research has shown a clear relationship between economic cycles and the Freight and Passenger Transportation Services Indexes. See a <u>study of this relationship</u> using smoothed and detrended TSI data. Researchers who wish to compare TSI over time with other economic indicators, can use the <u>FRED database</u>, which includes freight, passenger and combined TSI, and which makes it possible to easily graph TSI alongside the other series in that database. See <u>TSI data on FRED</u>.

For a webinar on the TSI, see <u>Past Webinars</u>. For a video explanation of the TSI, see <u>Overview of the Transportation Services Index</u>. A BTS report explaining the TSI, <u>Transportation Services Index and the Economy</u>, is available for download.

Table 1: Freight, Passenger and Combined Transportation Services Indexes since
December 2014
Percent Change from Previous Month
(Seasonally Adjusted, Monthly Average of 2000 = 100)
Freight Passenger Combined

	Index Po	ct. Chang	e Index	Pct. Change	Index	Pct. Change
December	122.4	-0.8	121.1	1.4	122.1	-0.2
January	122.8	0.3	119.5	-1.3	121.9	-0.2
February	120.9	-1.6	118.5	-0.9	120.2	-1.4
March	122.7	1.5	120.7	1.9	122.2	1.6
April	121.6	-0.9	121.3	0.5	121.6	-0.5
May	122.2	0.5	122.9	1.4	122.5	0.8
June	121.9	-0.3	122.6	-0.2	122.2	-0.3

SOURCE: Bureau of Transportation Statistics

NOTE: Percent changes based on numbers prior to rounding.

Table 2: Freight Transportation Services Index Monthly Changes, 2012-2015 Percent change from previous month

	2012	2013	2014	2015
	% Change	% Change	% Change	% Change
January	-2.6	1.8	-1.6	0.3
February	0.0	0.8	1.0	-1.6
March	-0.7	0.3	1.6	1.5
April	0.6	-0.6	0.5	-0.9
May	0.8	0.8	0.5	0.5
June	0.8	0.4	-1.0	-0.3
July	-0.3	0.1	1.8	
August	-0.6	0.4	-0.2	
September	-0.3	0.1	0.6	
October	-1.7	-0.2	0.5	
November	1.4	2.1	8.0	
December	0.3	-0.7	-0.8	

Table 2A: Freight Transportation Services Index by Month, 2012-2015

	2012	2013	2014	2015
January	111.9	114.2	116.2	122.8
February	112.0	115.1	117.4	120.9
March	111.2	115.4	119.3	122.7
April	111.8	114.7	119.9	121.6
May	112.6	115.7	120.5	122.2
June	113.5	116.1	119.2	121.9
July	113.2	116.2	121.4	
August	112.5	116.6	121.1	
September	112.1	116.8	121.8	
October	110.3	116.6	122.4	
November	111.8	119.0	123.4	
December	112.1	118.2	122.4	

Table 3: Freight, Passenger and Combined Transportation Services Indexes Year-to-Date Change, 2006-2015

Percent change to June from December of the previous year

Year	Freight	Passenger	Combined
2006	0.6	2.0	1.0
2007	-0.8	2.7	0.2
2008	-0.8	0.1	-0.6
2009	-4.1	-1.6	-3.4
2010	4.9	1.3	3.8
2011	1.4	0.9	1.3
2012	-1.3	-0.6	-1.1
2013	3.6	1.3	2.9
2014	8.0	1.3	1.0
2015	-0.4	1.2	0.1

SOURCE: Bureau of Transportation Statistics

Table 4: Freight Transportation Services Index from Year-to-Year Percent Change in the June Freight TSI (Monthly average of 2000 = 100)

2.3

#### Percent change from same month June Freight TSI previous year 2006 113.0 1.1 2007 109.7 -2.9 2008 109.9 0.1 2009 -12.5 96.1 2010 106.4 10.7 2011 110.2 3.6 2012 113.5 3.0 2013 116.1 2.3 2.6 2014 119.2

SOURCE: Bureau of Transportation Statistics

121.9

2015

NOTE: Percent changes based on numbers prior to rounding.

**Table 5: Transportation Services Indexes from Previous Years Percent Change to 2015 (June to June)** 

Since June	Duration in years	Freight TSI Percent change to June 2015	_	Combined TSI Percent change to June 2015
2014	1	2.3	2.6	2.4
2013	2	5.0	4.2	4.8
2012	3	7.4	6.5	7.2
2011	4	10.6	7.3	9.6
2010	5	14.6	9.6	13.1
2009	6	26.9	12.9	22.5
2008	7	11.0	5.3	9.1
2007	8	11.1	5.1	9.1
2006	9	7.9	10.5	8.5
2005	10	9.2	12.7	10.0

**Table 6: Passenger Transportation Services Index Monthly Changes, 2012-2015 Percent change from previous month** 

	2012	2013	2014	2015
	% Change	% Change	% Change	% Change
January	-0.5	0.7	-0.4	-1.3
February	1.8	0.0	0.0	-0.9
March	-1.0	-0.9	1.8	1.9
April	-0.3	1.0	0.0	0.5
May	-0.6	-0.3	0.3	1.4
June	0.2	0.7	-0.5	-0.2
July	-0.3	-0.7	0.3	
August	0.7	0.7	0.2	
September	0.0	-0.2	-0.2	
October	-1.9	0.4	0.6	
November	1.9	0.7	-1.0	
December	0.4	-0.5	1.4	

Table 7: Passenger Transportation Services Index from Year-to-Year Percent change in the June Passenger TSI (Monthly average of 2000 = 100)

	June Passenger TSI	Percent change from same month previous year
2006	111.0	2.0
2007	116.7	5.1
2008	116.4	-0.2
2009	108.6	-6.7
2010	111.9	3.0
2011	114.3	2.2
2012	115.1	0.7
2013	117.6	2.2
2014	119.5	1.6
2015	122.6	2.6

NOTE: Percent changes based on numbers prior to rounding.

Table 8: Combined Transportation Services Index Monthly Changes, 2012-2015 Percent change from previous month

	2012	2013	2014	2015
	% Change	% Change	% Change	% Change
January	-2.0	1.5	-1.3	-0.2
February	0.6	0.6	0.7	-1.4
March	-0.8	-0.1	1.6	1.6
April	0.3	-0.1	0.4	-0.5
May	0.4	0.5	0.4	0.8
June	0.6	0.5	-0.9	-0.3
July	-0.3	-0.2	1.4	
August	-0.2	0.4	-0.1	
September	-0.2	0.0	0.4	
October	-1.7	0.0	0.6	
November	1.6	1.7	0.3	
December	0.3	-0.7	-0.2	

Table 9: Combined Transportation Services Index from Year-to-Year Percent change in the June Combined TSI (Monthly average of 2000 = 100)

	June Combined TSI	Percent change from same month previous year
2006	112.6	1.4
2007	112.0	-0.6
2008	112.0	0.0
2009	99.8	-10.9
2010	108.1	8.3
2011	111.5	3.2
2012	114.1	2.3
2013	116.7	2.3
2014	119.4	2.3
2015	122.2	2.4

NOTE: Percent changes based on numbers prior to rounding.

Table 10: Freight Transportation Services Index Change by Quarter, 2006-2015 Percent change from the last month of the previous quarter

.,	1st Quarter (Jan-Mar)	(Apr-Jun)	3rd Quarter (Jul-Sep)	4th Quarter (Oct-Dec)
Year	% Growth	% Growth	% Growth	% Growth
2006	-0.3	0.9	0.0	-2.0
2007	1.1	-1.8	-0.3	1.2
2008	-0.8	0.0	-2.4	-6.5
2009	-4.3	0.2	3.4	2.1
2010	4.0	0.9	0.5	1.6
2011	1.8	-0.3	1.0	2.2
2011	1.0	-0.3	1.0	3.3
2012	-3.3	2.1	-1.2	0.0
2013	2.9	0.6	0.5	1.2
2014	0.9	-0.1	2.2	0.5
2015	0.2	-0.6		

Table 11: Passenger Transportation Services Index Change by Quarter, 2006-2015 Percent change from the last month of the previous quarter

Year	1st Quarter (Jan-Mar) % Growth	2nd Quarter (Apr-Jun) % Growth	3rd Quarter (Jul-Sep) % Growth	4th Quarter (Oct-Dec) % Growth
2006	2.0	-0.1	-0.3	2.6
2007	2.7	0.0	0.7	-1.0
2008	0.2	-0.2	-3.7	-1.6
2009	-1.6	0.0	0.9	0.9
2010	0.2	1.0	1.3	0.0
0044	0.0	0.7	0.0	0.5
2011	0.2	0.7	0.8	0.5
2012	0.2	-0.7	0.5	0.4
2013	-0.2	1.5	-0.2	0.5
2014	1.4	-0.1	0.3	1.0
2015	-0.4	1.6		

Table 12: Combined Transportation Services Index Change by Quarter, 2006-2015 Percent change from the last month of the previous quarter

Year	1st Quarter (Jan-Mar) % Growth	2nd Quarter (Apr-Jun) % Growth	3rd Quarter (Jul-Sep) % Growth	4th Quarter (Oct-Dec) % Growth
2006	0.4	0.6	-0.1	-0.7
2007	1.5	-1.3	0.0	0.6
2008	-0.5	-0.1	-2.8	-5.1
2009	-3.5	0.1	2.6	1.7
2010	2.8	0.9	8.0	1.1
2011	1.3	0.0	0.9	2.4
2012	-2.3	1.2	-0.7	0.1
2013	2.0	0.9	0.3	1.0
2014	1.1	-0.1	1.6	0.7
2015	0.1	0.0		

### **Brief Explanation of the TSI**

The Transportation Services Index (TSI) is a measure of the month-to-month changes in the output of services provided by the for-hire transportation industries. The freight index measure changes in freight shipments while the passenger index measures changes in passenger travel.

The TSI tells us how the output of transportation services has increased or decreased from month to month. The index can be examined together with other economic indicators to produce a better understanding of the current and future course of the economy. The movement of the index over time can be compared with other economic measures to understand the relationship of changes in transportation output to changes in Gross Domestic Product (GDP).

## The freight transportation index consists of:

For-hire trucking,

Railroad freight services (including rail based intermodal shipments such as containers on flat cars),

Inland waterways transportation,

Pipeline transportation (including principally petroleum and petroleum products and natural gas), and

Air freight.

The index does not include international or coastal waterborne movements, private trucking, courier services, or the US Postal Service.

#### The passenger transportation index consists of:

Local transit,

Intercity passenger rail, and

Passenger air transportation.

The index does not include intercity bus, sightseeing services, ferry services, taxi service, private automobile usage, or bicycling and other non-motorized transportation.